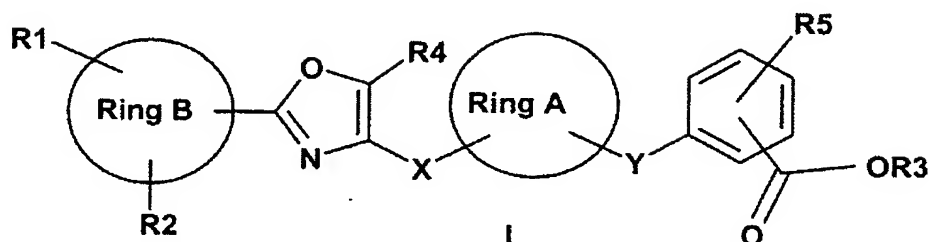


We claim:

DEAV2003/0017

Dr. WI

1. A compound of the formula I



wherein

Ring A is (C<sub>3</sub>-C<sub>8</sub>)-cycloalkanediyl or (C<sub>3</sub>-C<sub>8</sub>)-cycloalkenediyl, wherein one or more carbon atoms in said (C<sub>3</sub>-C<sub>8</sub>)-cycloalkanediyl and (C<sub>3</sub>-C<sub>8</sub>)-cycloalkenediyl groups is optionally replaced by oxygen atoms;

Ring B is a) phenyl; or

b) (C<sub>3</sub>-C<sub>8</sub>)-cycloalkyl, an 8-, 9-, 10, 11-, 12-, 13- or 14-membered aromatic ring, or a 5-, 6-, 7-, 8-, 9-, 10-, 11- or 12-membered heteroaromatic ring optionally containing one, two, three or four heteroatoms selected from the group consisting of N, O and S;

a) in the case where ring B is selected from a) above:  
SCF<sub>3</sub>, OCF<sub>2</sub>-CHF<sub>2</sub>, O-phenyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl-O-(C<sub>1</sub>-C<sub>3</sub>)-alkyl;

b) in the case where ring B is selected from b) above:  
H, F, Cl, Br, OH, NO<sub>2</sub>, CF<sub>3</sub>, OCF<sub>3</sub>, OCF<sub>2</sub>-CF<sub>3</sub>, SCF<sub>3</sub>, OCF<sub>2</sub>-CHF<sub>2</sub>, O-phenyl, (C<sub>1</sub>-C<sub>6</sub>)-alkyl, O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl-O-(C<sub>1</sub>-C<sub>3</sub>)-alkyl;

c) in the case ring B is selected from a) above and R<sub>4</sub> is phenyl:  
(C<sub>1</sub>-C<sub>6</sub>)-alkyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl;

R<sub>2</sub> is H or CF<sub>3</sub>;

R4 is a) in the case where ring B is selected from a) above:  
phenyl;

5 b) in the case where ring B is selected from b) above:  
H, F, Cl, Br, OH, NO<sub>2</sub>, CF<sub>3</sub>, OCF<sub>3</sub>, (C<sub>1</sub>-C<sub>6</sub>)-alkyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl;

10 c) in the case ring B is selected from a) above and R1 is  
selected from a) above:  
(C<sub>1</sub>-C<sub>6</sub>)-alkyl;

R5 is H, F, Cl, Br, OH, NO<sub>2</sub>, CF<sub>3</sub>, OCF<sub>3</sub>, (C<sub>1</sub>-C<sub>6</sub>)-alkyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl;

R3 is H or (C<sub>1</sub>-C<sub>6</sub>)-alkyl;

15 X is (C<sub>1</sub>-C<sub>6</sub>)-alkanediyl, wherein one or more carbon atoms in said (C<sub>1</sub>-  
C<sub>6</sub>)-alkanediyl group are optionally replaced by oxygen atoms;

Y is (C<sub>1</sub>-C<sub>6</sub>)-alkanediyl, wherein one or more carbon atoms in said (C<sub>1</sub>-  
C<sub>6</sub>)-alkanediyl group are optionally replaced by oxygen atoms;  
20

and pharmaceutically acceptable salts thereof.

2. The compound of Claim I wherein:

25

Ring A is (C<sub>3</sub>-C<sub>8</sub>)-cycloalkanediyl or (C<sub>3</sub>-C<sub>8</sub>)-cycloalkenediyl, wherein one or  
more carbon atoms in said (C<sub>3</sub>-C<sub>8</sub>)-cycloalkanediyl and (C<sub>3</sub>-C<sub>8</sub>)-  
cycloalkenediyl groups are optionally replaced by oxygen atoms;

30 Ring B is a) phenyl; or

b) (C<sub>3</sub>-C<sub>8</sub>)-cycloalkyl, an 8-, 9-, 10, 11-, 12-, 13- or 14-membered  
aromatic ring, or a 5-, 6-, 7-, 8-, 9-, 10-, 11- or 12-membered  
heteroaromatic ring optionally containing one, two, three or four  
35 heteroatoms selected from the group consisting of N, O and S;

R1 is a) in the case where ring B is selected from a) above:  
SCF<sub>3</sub>, OCF<sub>2</sub>-CHF<sub>2</sub>, O-phenyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl-O-(C<sub>1</sub>-C<sub>3</sub>)-alkyl;

40 b) in the case where ring B is selected from b) above:

H, F, Cl, Br, OH, NO<sub>2</sub>, CF<sub>3</sub>, OCF<sub>3</sub>, OCF<sub>2</sub>-CF<sub>3</sub>, SCF<sub>3</sub>, OCF<sub>2</sub>-CHF<sub>2</sub>, O-phenyl, (C<sub>1</sub>-C<sub>6</sub>)-alkyl, O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl-O-(C<sub>1</sub>-C<sub>3</sub>)-alkyl;

- 5 c) in the case where ring B is selected from a) above and R<sub>4</sub> is phenyl:  
(C<sub>1</sub>-C<sub>6</sub>)-alkyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl;
- 10 R is H or CF<sub>3</sub>;
- R<sub>4</sub> is a) in the case where ring B is selected from a) above:  
phenyl;
- 15 b) in the case where ring B is selected from b) above:  
H, F, Cl, Br, OH, NO<sub>2</sub>, CF<sub>3</sub>, OCF<sub>3</sub>, (C<sub>1</sub>-C<sub>6</sub>)-alkyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl;
- 20 c) in the case where ring B is selected from a) above and R<sub>1</sub> is selected from a) above:  
(C<sub>1</sub>-C<sub>6</sub>)-alkyl;
- R<sub>5</sub> is H, F, Cl, Br, OH, NO<sub>2</sub>, CF<sub>3</sub>, OCF<sub>3</sub>, (C<sub>1</sub>-C<sub>6</sub>)-alkyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl;
- R<sub>3</sub> is H or (C<sub>1</sub>-C<sub>6</sub>)-alkyl;
- 25 X is CH<sub>2</sub>-O;
- Y is (C<sub>1</sub>-C<sub>6</sub>)-alkanediyl, wherein one or more carbon atoms in said (C<sub>1</sub>-C<sub>6</sub>)-alkanediyl group are optionally replaced by oxygen atoms.
- 30 3. The compound of Claim 2 wherein:
- Ring A is (C<sub>3</sub>-C<sub>8</sub>)-cycloalkanediyl wherein one carbon atom therein is optionally replaced by an oxygen atom;
- 35 Ring B is a) phenyl; or
- b) (C<sub>3</sub>-C<sub>8</sub>)-cycloalkyl, an 8-, 9-, 10-, 11-, 12-, 13- or 14-membered aromatic ring, or a 5-, 6-, 7-, 8-, 9-, 10-, 11- or 12-membered heteroaromatic ring optionally containing one, two, three
- 40 or four heteroatoms selected from the group consisting of N, O and

S;

R1 is a) in the case where ring B is selected from a) above:  
SCF<sub>3</sub>, OCF<sub>2</sub>-CHF<sub>2</sub>, O-phenyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl-O-(C<sub>1</sub>-C<sub>3</sub>)-alkyl;

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b) in the case where ring B is selected from b) above:  
H, F, Cl, Br, OH, NO<sub>2</sub>, CF<sub>3</sub>, OCF<sub>3</sub>, OCF<sub>2</sub>-CF<sub>3</sub>, SCF<sub>3</sub>, OCF<sub>2</sub>-CHF<sub>2</sub>,  
O-phenyl, (C<sub>1</sub>-C<sub>6</sub>)-alkyl, O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl-O-(C<sub>1</sub>-C<sub>3</sub>)-  
alkyl;

10

c) in the case where ring B is selected from a) above and R4 is  
phenyl:  
(C<sub>1</sub>-C<sub>6</sub>)-alkyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl;

15 R2 is H or CF<sub>3</sub>;

R4 is a) in the case where ring B is selected from a) above:  
phenyl;

20 b) in the case where ring B is selected from b) above:  
H, F, Cl, Br, OH, NO<sub>2</sub>, CF<sub>3</sub>, OCF<sub>3</sub>, (C<sub>1</sub>-C<sub>6</sub>)-alkyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl;

25 c) in the case where ring B is selected from a) above and R1 is  
selected from a) above:  
(C<sub>1</sub>-C<sub>6</sub>)-alkyl;

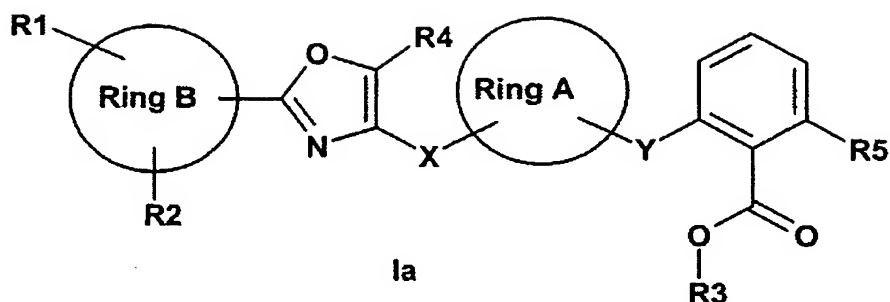
R5 is H, F, Cl, Br, OH, NO<sub>2</sub>, CF<sub>3</sub>, OCF<sub>3</sub>, (C<sub>1</sub>-C<sub>6</sub>)-alkyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl;

30 R3 is H or (C<sub>1</sub>-C<sub>6</sub>)-alkyl;

X is CH<sub>2</sub>-O;

Y is CH<sub>2</sub>-O.

35 4. The compound of Claim 1 which has the formula Ia



wherein ring A, ring B, R1, R2, R3, R4, R5, X and Y are as defined in Claim 1.

5     5.             The compound of Claim 4 wherein:

R3 is             H; and

R5 is             methyl.

10

6.                The compound of Claim 5 wherein:

Ring A is        (C<sub>5</sub>-C<sub>7</sub>)-cycloalkanediyl;

15     Ring B is     a)        phenyl; or

b)        (C<sub>3</sub>-C<sub>8</sub>)-cycloalkyl, an 8-, 9-, 10-, 11-, 12-, 13- or 14-membered aromatic ring, or a 5-, 6-, 7-, 8-, 9-, 10-, 11- or 12-membered heteroaromatic ring optionally containing one, two, three or four heteroatoms selected from the group consisting of N, O and S;

20

R1 is             a)        in the case where ring B is selected from a) above:  
SCF<sub>3</sub>, OCF<sub>2</sub>-CHF<sub>2</sub>, O-phenyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl-O-(C<sub>1</sub>-C<sub>3</sub>)-alkyl;

25

b)        in the case where ring B is selected from b) above:  
H, F, Cl, Br, OH, NO<sub>2</sub>, CF<sub>3</sub>, OCF<sub>3</sub>, OCF<sub>2</sub>-CF<sub>3</sub>, SCF<sub>3</sub>, OCF<sub>2</sub>-CHF<sub>2</sub>, O-phenyl, (C<sub>1</sub>-C<sub>6</sub>)-alkyl, O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl-O-(C<sub>1</sub>-C<sub>3</sub>)-alkyl;

30

c)        in the case where ring B is selected from a) above and R4 is phenyl:

(C<sub>1</sub>-C<sub>6</sub>)-alkyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl;

R<sub>2</sub> is H or CF<sub>3</sub>;

5 R<sub>4</sub> is a) in the case where ring B is selected from a) above:  
phenyl;

10 b) in the case where ring B is selected from b) above:  
H, F, Cl, Br, OH, NO<sub>2</sub>, CF<sub>3</sub>, OCF<sub>3</sub>, (C<sub>1</sub>-C<sub>6</sub>)-alkyl or O-(C<sub>1</sub>-C<sub>6</sub>)-alkyl;

c) in the case where ring B is selected from a) above and R<sub>1</sub>  
selected from a) above:  
(C<sub>1</sub>-C<sub>6</sub>)-alkyl;

15 R<sub>5</sub> is methyl;

R<sub>3</sub> is H;

20 X is CH<sub>2</sub>-O;

Y is CH<sub>2</sub>-O.

7. The compound of Claim 6 wherein the central cycloalkanediyl ring is  
25 attached 1,3-cis.

8. A pharmaceutical composition comprising a pharmaceutically acceptable  
carrier and one or more compounds of Claim 1.

9. The pharmaceutical composition of Claim 6 further comprising at least one  
30 additional active ingredient.

10. The pharmaceutical composition of Claim 9 wherein said additional active  
ingredient has favorable effects on metabolic disturbances or disorders.

35 11. The pharmaceutical composition of Claim 9 wherein said additional active  
ingredient is an antidiabetic.

12. The pharmaceutical composition of Claim 9 wherein said additional active ingredient is a lipid modulator.

13. A method of treating disorders of fatty acid metabolism and glucose  
5 utilization comprising administering to a patient in need thereof a therapeutically effective amount of a compound of Claim 1.

14. A method of treating disorders of insulin resistance comprising  
10 administering to a patient in need thereof a therapeutically effective amount of a compound of Claim 1.

15. A method of treating diabetes mellitus including the prevention of the  
15 sequelae associated therewith comprising administering to a patient in need thereof a therapeutically effective amount of a compound of Claim 1.

16. A method of treating dyslipidemia and sequelae associated therewith  
comprising administering to a patient in need thereof a therapeutically effective  
amount of a compound of Claim 1.

17. A method of treating metabolic syndrome and conditions associated  
20 therewith comprising administering to a patient in need thereof a therapeutically effective amount of a compound of Claim 1.

18. A method of treating disorders of fatty acid metabolism and glucose  
25 utilization comprising administering to a patient in need thereof a therapeutically effective amount of a compound of Claim 1 in combination with at least one further active compound.

19. A method of treating disorders of insulin resistance comprising  
30 administering to a patient in need thereof a therapeutically effective amount of a compound of Claim 1 in combination with at least one further active compound.